# Making a Non-Destructive Modification To A Patterson Tank Reel To Fit 122 (94mm) Film

(No original parts were harmed in this modification)

In a previous article I demonstrated how I made 122 spools for a Kodak No. 3 “Autographic” Special Model “B” camera, that takes size 122 Film (94mm width). I stated, at that time, I did not have a way to tank develop 122 film in my Patterson tank. In this PDF I will show anyone how easy it is to do a NON-DESTRUCTIVE way to place 122 film onto a 120 spool - with this simple modification.

Because I keep a lot of “usable” parts in the back corners of my garage shop area, I found some aluminum tube that would make an extension to fit the inner 1" tube of the Patterson developing spools. I cut to size to take up and extend the width of the spiral “cage” which would hold 122 film in place while developing in a tank.

The “Normal” Developing Patterson Reel

The 122 Film Spool = 94mm Film

Cut a 26mm I.D. Aluminum Tube for
64mm Length - & Apply Waterproof tape to Fit.

Place the Original Patterson Tube in The Smaller End
The Extension Tube with the tape, In The Larger One

Here I shall let the above photo illustrations speak from themselves. I think anyone can do this as all it took was a hacksaw, sandpaper (to smooth edges of the cut), and waterproof tape. The separation of the tape is to permit the locking part to enter.

The waterproof tape is ONLY on the aluminum spacer, that slides onto the Patterson center tube. This developing reel can be returned to it's use for smaller films as what it was designed to do.

Place The Two Parts of The Patterson Reel Together (Here You See a Fit Comparison Of Film Spool To Developing Spool.)

**NOTE** >

*The Patterson Tank can NOT be used with this modification. A Larger 4" diameter by 6" tall MUST be used. The Patterson "Light-Lock" top that locks into place will NOT fit.*

When applying the tape I left a little gap where the "Locking Part" of the spiral reel can slide onto the aluminum tube. Also - With fitting the LARGER diameter spiral I used three wraps of the tape on the end to hold the spool onto the aluminum tube and not slip. Depending on the thickness of the tape that you use this wrapping might be less or more would be needed. ONLY USE WATERPROOF TAPE. And never use any hydrocarbon based cleaners when using your tank. Especially on the tape of this modification part.

Now - The Tank to use with 122 film for development:

If you have a deeper tank (one that would hold more than two Patterson spiral reels), HEY! Use That. If you do not = You Must Make One.

Because tank development is usually done in the normal light, a good tight and Light proof top MUST be used. That is, if you want to use the tank out of the darkroom area. You can load the film in the dark and put a lid on the tank - then turn off the light to empty the chemicals. (However - This can be a bit cumbersome and a royal pain in the ass.) So a lid that not only fits tight but one that will keep out the light - AND that you may add chemicals, and dump them out without doing this in the dark is a perfired way of the tank film development process.

Making a light proof tank is not difficult, however my way does require soldering.

This requires a little more experience than using tape, and I only tell this as the way I did it. For the "mechanically challenged" it might be too much. And I understand. For those folks, I respectfully say to use a larger tank - with a "light trap" and a water tight lid.

(*A Vivitar 3 roll tank*)

Also - There is one other way. If you have in your photo-equipment collection an early 1900 era Kodak tank – use that.

(*Early 1900 Kodak Film Tank*)

I used a container made of steel that was tin coated so it would accept soldering. And some "tin cans" which I cut to make the "light-trap" on the inside of the lid. In total it is not attractive - but it works, and to me that is all that I needed.

So. Being that I have shown the alternatives, I think that is sufficient. As this article was only for the modification of the Patterson 120 to a 122 film developing spiral reel.

Thank you for reading = James R. Kyle, Photographer, Saint Louis, Missouri, U.S. of A.